

What is claimed is:

1. A method of blocking microbial adherence to a eukaryotic cell surface in a mammal by applying to said surface a pharmacologically acceptable composition comprising isoleucine present in a microbial blocking quantity.
- 5 2. The method of claim 1 wherein the microbial blocking quantity is in the range of from about 0.1 ug/cm² to about 1 gm/cm² of eukaryotic cell surface area.
3. The method of claim 2 wherein said quantity is from about 3 ug/cm² to about 100 ug/cm².
4. The method of claim 2 wherein said quantity is from about 10 ug/cm² to about 100 ug/cm².
- 10 5. The method of claim 1 wherein the mammal is man.
6. The method of claim 1 wherein the epithelial surface is one or more of the oral cavity, GI tract, respiratory tract, genitourinary tract, skin, eye, and vaginal/cervical area.
- 15 7. The method of claim 1 wherein the composition consists of a pure powder of L(+)-isoleucine and/or DL-isoleucine.
- election 8. The method of claim 1 wherein the composition is in the form of a dry powder, a paste, a solution, a gel, a tablet, a lozenge, or a capsule, gum, spray, ointment, cream, 1
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11. A pharmacologically acceptable composition comprising:

- A) from about 0.001 to about 99% by weight of isoleucine;
- B) at least one additional pharmacologically active substance; and, optionally,
- 5 C) pharmacologically acceptable carrier materials and/or excipients.

12. The composition of claim 11 wherein component A) is present in from about 0.002 to about 50% by weight.

13. The composition of claim 11 wherein component A) is present in from about 0.1 to about 25% by weight.

10 14. The composition of claim 11 wherein said composition is in the form of a dental care product.

15. The composition of claim 14 wherein component B) is one or more of a fluoride, xylitol, an antibody, and an anti-microbial agent.

16. The composition of claim 14 wherein the composition is in the form of a
15 toothpaste or a gel.

17. The composition of claim 14 wherein the composition is in the form of a denture
adhesive or gel.

18. A toothpaste or gel comprising a eukaryotic cell surface blocking quantity of
isoleucine.

20 19. The composition of claim 11 wherein the composition is in the form of a chewing gum.

20. The composition of claim 19 wherein component B) is one or more of an antimicrobial substance and xylitol.

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- 21. A chewing gum comprising a eukaryotic cell blocking quantity of isoleucine.
- 22. The composition of claim 11 wherein the composition is in the form of a hard candy or lozenge.
- 23. The composition of claim 11 wherein the composition is coated on dental floss.
- 5 24. The composition of claim 11 wherein the composition is in the form of a vaginal gel.
- 25. The composition of claim 24 wherein component B) is a antifungal and/or antimicrobial substance.
- 26. A vaginal gel comprising a eukaryotic cell surface blocking quantity of
10 isoleucine.
- 27. The composition of claim 11 wherein the composition is in the form of a female douche, and component B) is one or more of an antimicrobial substance, an anti-fungal agent, live probiotic microorganisms, and live lactobacilli.
- 28. A female douche comprising a eukaryotic cell surface blocking quantity of
15 isoleucine.
- 29. The composition of claim 11 wherein the composition is in the form of a nasal spray, and component B) is one or more of a decongestant, zinc ions, pseudoephedrine, dextromethorphan, diphenhydramine, and echinacea.
- 30. A nasal spray comprising a eukaryotic cell surface blocking quantity of
20 isoleucine.
- 31. The composition of claim 11 wherein the composition is in the form of a wound ointment or cream, and component B) is one or more of an antimicrobial substance, and an anesthetic.

32. A wound ointment or cream comprising a eukaryotic cell surface blocking quantity of isoleucine.

33. A gauze wound covering containing a eukaryotic cell surface blocking quantity of isoleucine.

5 34. The composition of claim 11 wherein the composition is in the form of a skin ointment or cream.

35. The composition of claim 11 wherein the composition is in the form of an oral supplement, and component B) is one or more of an antioxidant, a vitamin, live probiotic bacteria, live bifidobacteria, live streptococci, live enterococci, heat-
10 killed probiotic bacteria, peppermint oil or extract, menthol, quassia, bistort, ginger, angelica, bayberry, chamomile, fish oil, a fatty acid, an omega-3 fatty acid, fiber, flaxseed, slippery elm, niacin, a plant extract, garlic or garlic extract, calcium, stannol esters, lutein, zeaxanthin, cryptoxanthin, isoflavone, an anti-inflammatory compound, aspirin, ibuprofen, and acetaminophen.

15 36. An oral dosage composition comprising a eukaryotic cell surface blocking quantity of isoleucine.

37. The composition of claim 11 wherein component B) is a comestible.

38. The composition of claim 37 wherein the comestible is selected from the group consisting of a fermented milk food product, a nutritional bar, a baked cake, a
20 baked cookie, a spreadable food product, a nutritional drink, a dairy product, a soup, an infant formula, and a baby food.

39. The composition of claim 11 wherein component B) is an animal food.

40. The composition of claim 39 wherein the animal food contains at least one of the following: chicory, fiber, live probiotic bacteria, silage, grain, corn, soybeans, and wheat.

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